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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,812	02/27/2004	Jens-Peter Dittrich	34874-087 UTIL	5634
64280 7590 02/06/2008 MINTZ, LEVIN, COHN, FERRIS, GLOVSKY & POPEO, P.C. 5355 Mira Sorrento Place SUITE 600 SAN DIEGO, CA 92121			EXAMINER CHANG, JUNGWON	
			ART UNIT 2154	PAPER NUMBER
			MAIL DATE 02/06/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

MW

<b>Office Action Summary</b>	Application No. 10/789,812	Applicant(s) DITTRICH ET AL.	
	Examiner Jungwon Chang	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/14/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 1-10 are presented for examination.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mao et al, (US 6,728,704), hereinafter Mao, in view of Shirasaka (US 6,879,982).

4. As to claim 1, Mao discloses the invention as claimed, including a method of executing an information retrieval query in a multiserver computing environment (fig. 1), comprising:

distributing the query among each of a plurality of partial servers in the multiserver environment (70, fig. 2; col. 5, lines 28-43);

calculating a subset of results for each of the plurality of partial servers (76, fig. 2; fig. 3, "scoring value"; col. 5, lines 56-65); and

merging the subset of results in one logical server to generate a merged result (80, fig. 2; 140, fig. 3; col. 6, lines 6-28).

5. Mao discloses a plurality of partial servers. However, Mao does not use a term index servers. However, Shirasaka discloses a plurality of partial servers (fig. 1; col. 6, lines 3-24). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Mao and Shirasaka because Shirasaks' plurality of partial index servers would avoid load concentration to a specific server and improve the access efficiently (Shirasaka, col. 1, lines 27-41).

6. As to claim 2, Mao discloses a method in accordance with claim 1, further comprising receiving the query from a frontend computer system (col. 4, lines 50-58, "transmit it through transmission channel 20 to search engine 40").

7. As to claim 3, Mao discloses a method in accordance with claim 2, further comprising sending the merged result to the frontend computer system (col. 4, lines 59-65, "return them to engine 40").

8. As to claim 4, Mao discloses a method in accordance with claim 1, wherein distributing the query further includes: requesting N unsorted results with an offset M from one of the plurality of partial servers, the N unsorted results having keys  $K_1, \dots, K_N$ ; and requesting N unsorted results from each other of the plurality of partial servers, wherein each of the N unsorted results has the same keys  $K_j$  of the respective N unsorted results requested from the one of the plurality of partial servers, and wherein  $(1 \leq j \leq N)$  (col. 5, lines 44-55).

9. As to claim 5, Mao discloses a method in accordance with claim 1, wherein distributing the query further includes: requesting N sorted results with an offset M from each of the plurality of partial servers; and merging C results from each of the plurality of partial servers in one logical server, wherein C is much greater than N and represents an upper bound on the number of results that needs to be considered in order to obtain the N results required (col. 5, lines 56-65).

10. As to claim 6, Mao discloses a method in accordance with claim 5, further comprising selecting a number C (col. 5, lines 44-56, "number n"; col. 6, lines 45-64).

11. As to claim 7, Mao discloses a method in accordance with claim 5, further comprising determining whether the value of C is sufficient (col. 5, lines 44-56, "number n"; col. 6, lines 45-64).

12. As to claim 8, Mao discloses a method in accordance with claim 7, wherein determining whether the value of C is sufficient further includes: determining a sum G of the Cth aggregate values for the plurality of partial servers; determining a value H representing the (N+M)th aggregate value; and if  $G \geq H$ , resetting C to a new value (130, fig. 3; col. 6, lines 29-36; col. 7, lines 35-54).

13. As to claim 9, it is rejected for the same reasons set forth in claim 1 above. In addition, Mao discloses a system for executing an information retrieval query in a

multiserver computing environment (fig. 1), comprising:

a frontend computer system for receiving the query (col. 4, lines 50-58, "transmit it through transmission channel 20 to search engine 40");

one or more partial servers configured to receive the query, and to calculate a subset of results (70, 76, fig. 2; fig. 3, "scoring value"; col. 5, lines 28-65); and

a logical server configured to merge the subset of results from each of the one or more partial servers to generate a merged result (80, fig. 2; 140, fig. 3; col. 6, lines 6-28).

14. As to claim 10, Mao discloses a system in accordance with claim 9, wherein the logical server is further configured to forward the merged result to the frontend computer system (80, fig. 2; 140, fig. 3).

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Singhal, US 6,163,782, Schneider, US 6,895,430, Bookman et al, US 5,822,720, Barnett, US 2002/0198869, disclose a method and system for meta-search technique that ranks documents obtained from multiple collections.


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is 571-272-

3960. The examiner can normally be reached on 6:30-2:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 3, 2008

  
JUNGWON CHANG  
PRIMARY EXAMINER  
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